

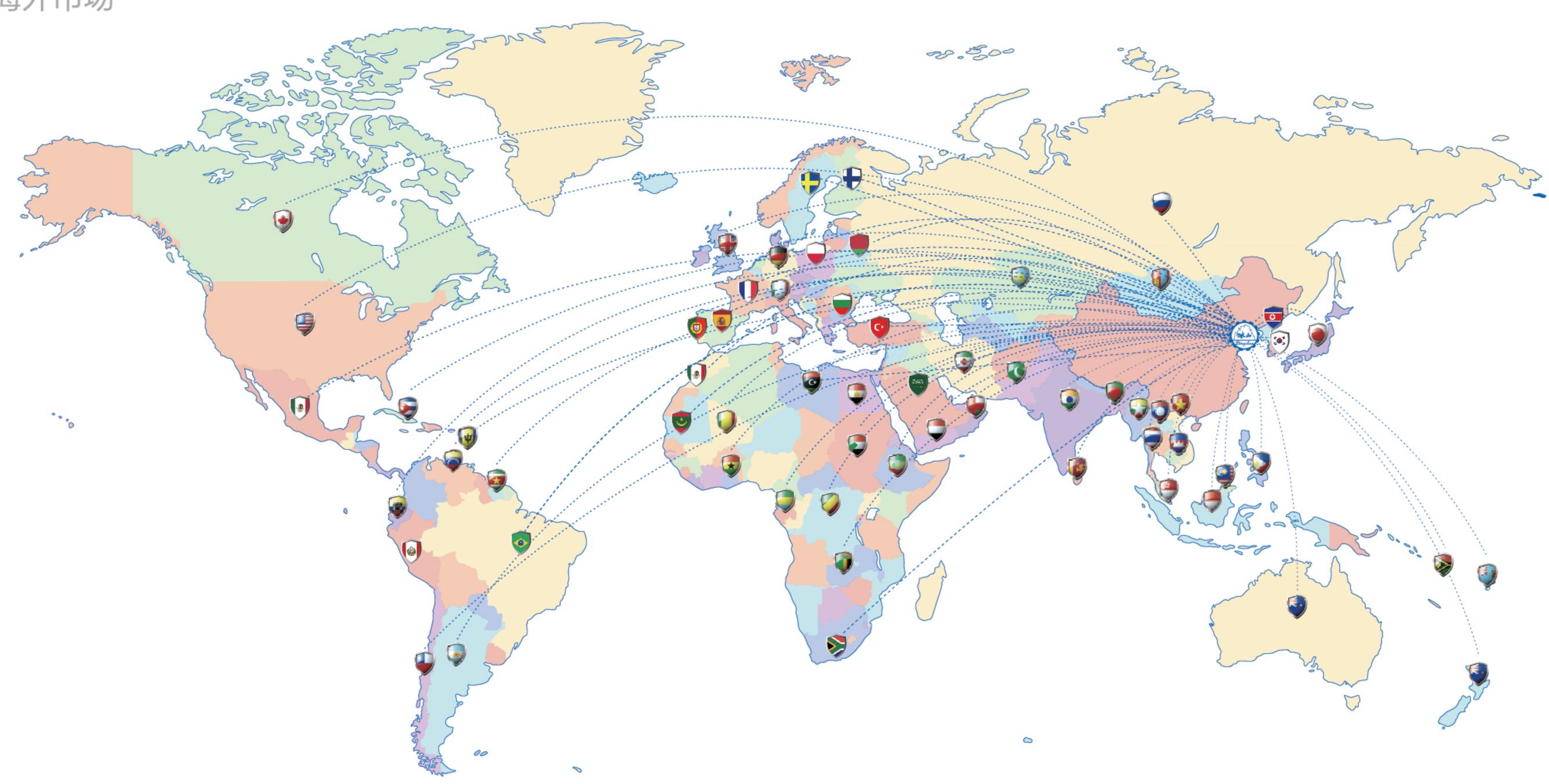


ADIABATIC COOLER AND CONDENSER

Company porfile

Overseas Market

海外市场



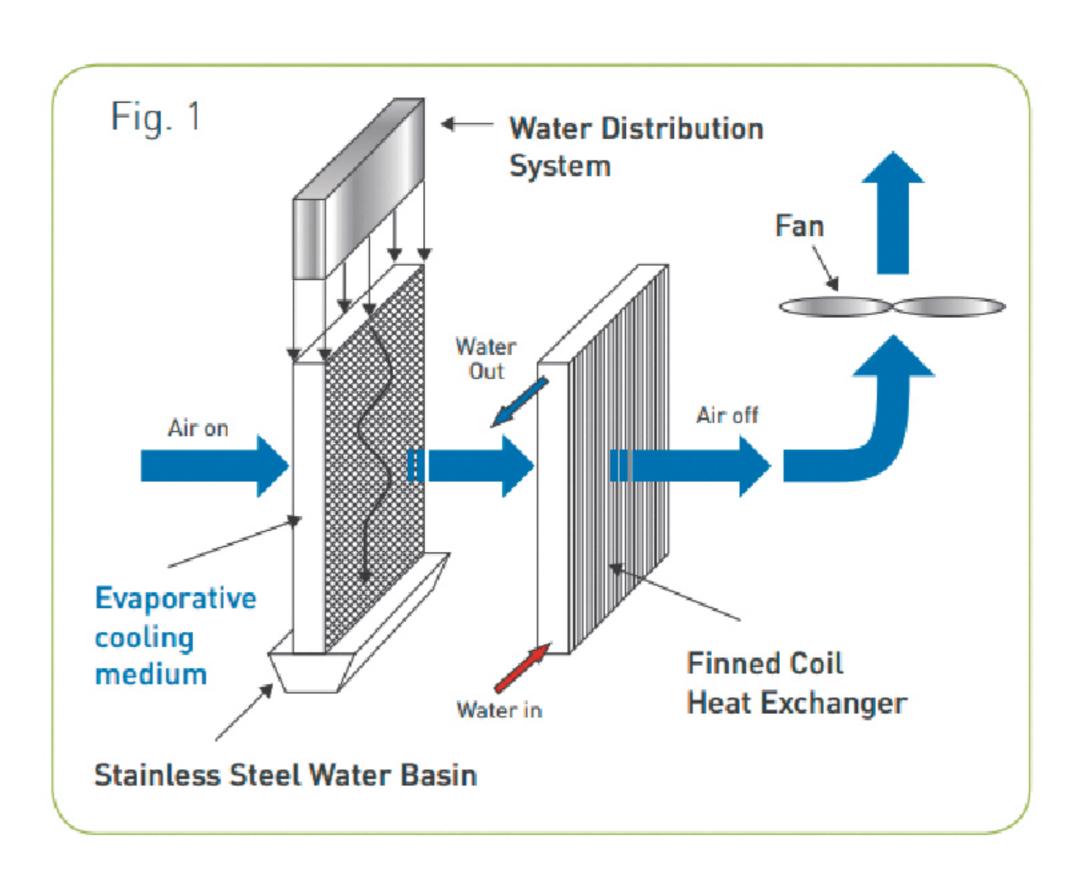
Dalian Bingshan Engineering & Trading Co., Ltd., the overseas flagship of Bingshan Group, has been courageously navigating the refrigeration industries across multiple countries in overseas markets since its establishment in 1988. Through years of dedicated efforts, it has emerged as a pioneer in heating and cooling technologies across Southeast Asia and beyond. Over decades of development, the company has persistently explored new markets and driven innovation, specializing in global consultation & design, sales & installation, commissioning & maintenance of thermal solutions worldwide.

Guided by customer-centric values and supported by China's industrial refrigeration manufacturing base, Dalian Bingshan Engineering & Trading Co., Ltd. seamlessly integrates cutting-edge cooling technologies, engineering expertise, and trade capabilities. It has successfully delivered hundreds of turnkey refrigeration projects across Asia, Africa, the Americas, and over 60 countries/regions.





The Adiabatic cooler is a combination of a dry cooler and an adiabatic cooling track before the air inlet. Adiabatic pre-cooling is activated then the water outlet temperature is higher than needed. The cooling medium is cooled to below the ambient air temperature completely abacterial and without water treatment. The system works on the adiabatic principle of heat rejection. By extracting energy from the air



to provide energy to evaporate water, the resulting reduction in air temperature can then be used in turn to cool a conventional radiator type heat exchanger (Fig 1)



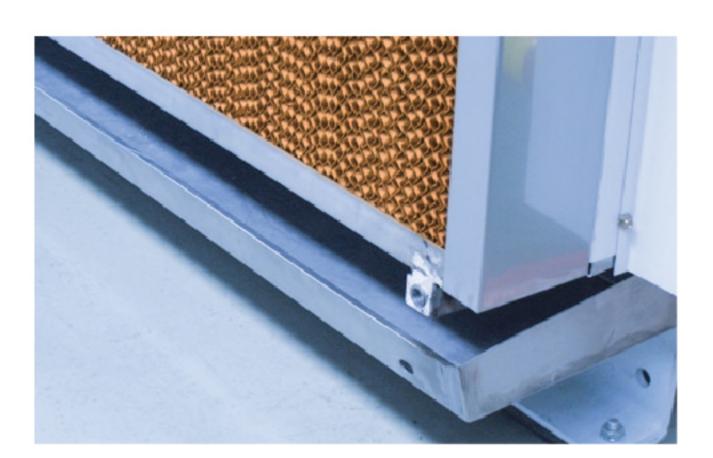
- Isn't this the same as other adiabatic coolers?
- The unique design of the BSET system avoids the use of sprays or deliberate generation of an aerosol. This is in fact an improvement on conventional adiabatic coolers which utilize direct sprays onto the air-cooled radiator. This has numerous advantages including:
 - The transmission of pathogenic bacteria through aerosols is totally avoided
 - The closed circuit heat exchanger remains dry and negates the need for water treatment
 - The corrosive effect of water in fins is removed
 - Deposition and external fouling is dramatically reduced.

MAINTENANCE MADE EASY



PAD REMOVAL

Access to valves, pump, storage basket, sump is a simple as opening the door.



WATER TRAY CLEANING

Cleaning the drainage system is simple with the "drop down" water tray.



PUMP MAINTENANCE

Access to valves, pumps, strainers, basket and sump is as simple as opening the door.



ACCESS PANELS

The BSET Adiabatic cooler is equipped with a large access point allowing full access into the unit.





Heat Exchanger Coils

steel tubes/ aluminum fins.

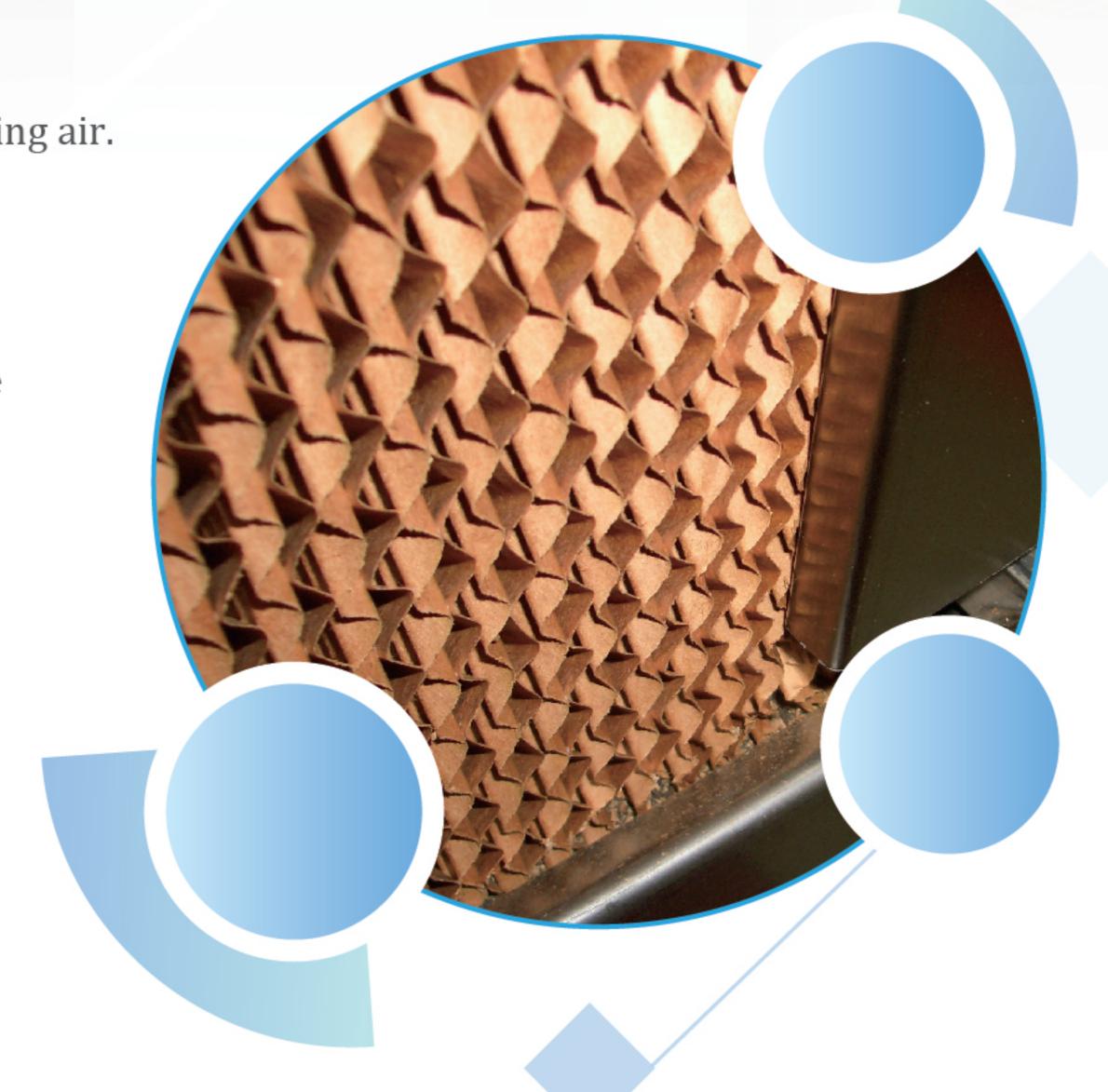
Standard coils are manufactured from copper tubes/ aluminum fins. The tubes are mechanically expanded into collared holes in the fins to ensure proper mechanical and thermal bonding for effective heat transfer. The coils are a floating tube design.

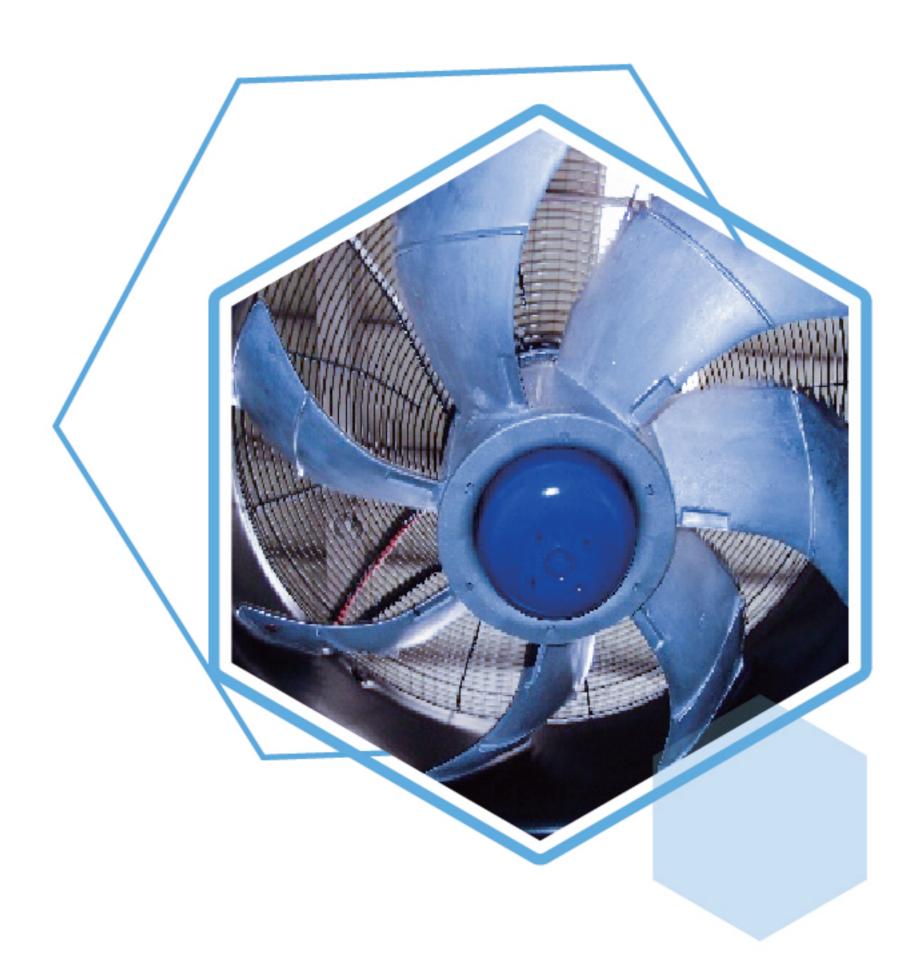
An alternative tube/fin combination is galvanized steel tubes/ aluminum fins and stainless

Evaporative Pre-Cooling

CelPad Type evaporative cooling pads are used to pre-cool the incoming air.

The CelPads cover the entire air inlet faces on both sides of the unit,
supported by water distribution trays on top and drain troughs at the
bottom. Pre-cooling is activated only when ambient air temperature
exceeds the designated preset set-point (for lower ambient air
temperature pre-cooling is not necessary). Water is pumped
over the pads to saturate the pad. The system includes a dump
valve which opens daily or when pre-cooling is not required to
drain all the water from the unit to eliminate any potential risk



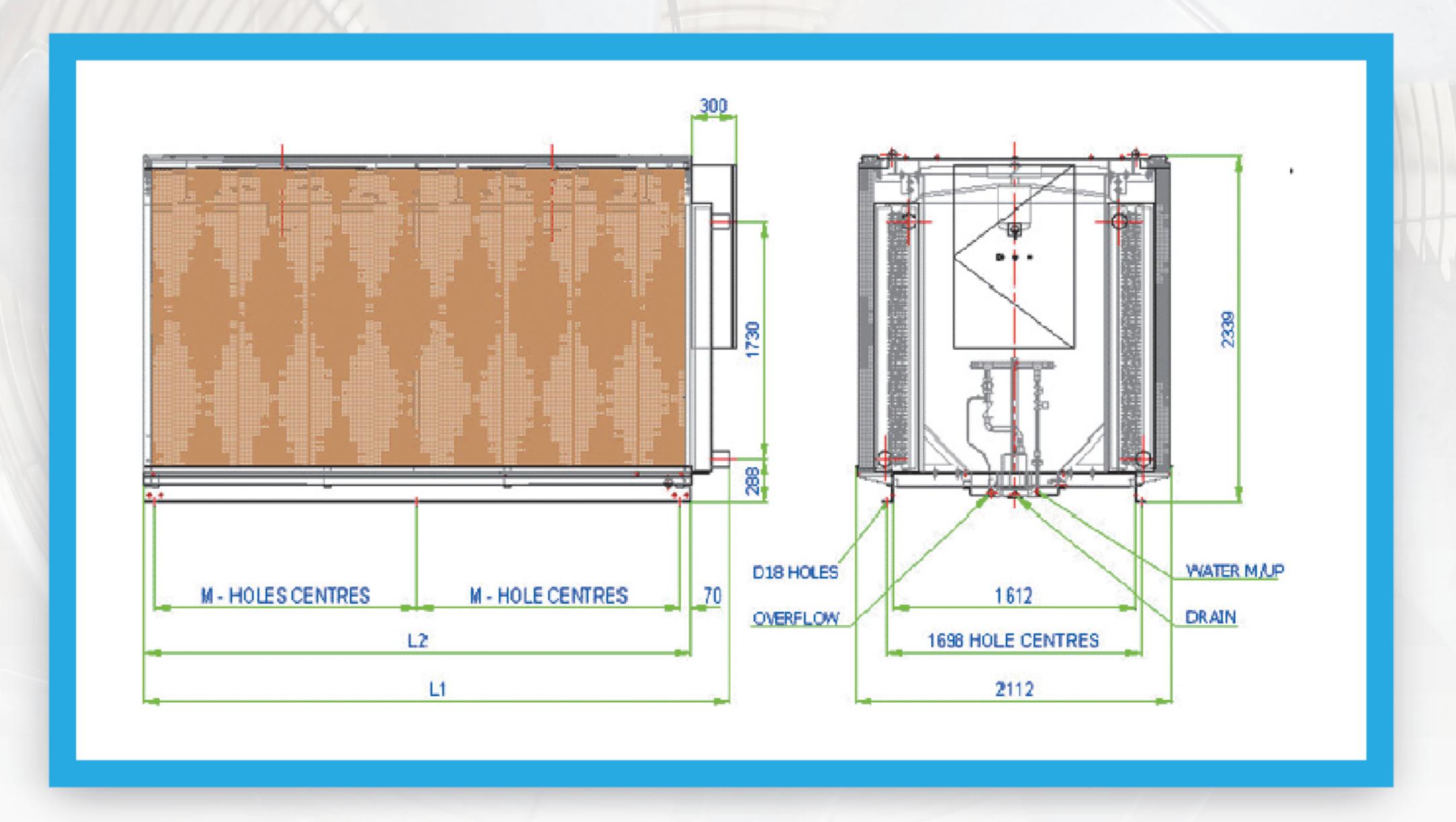


of bacteria growth.

Axial Flow Fans

A bank of fans on top deck of the unit draws air through pre-cooling media and the heat exchangers. The fans are low speed axial flow fans with either winglet/bionic blade design or wide chord blades to provide optimum performance and low noise.





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Freon System Series	Mode1		H08-DF24	H08-DF26	H08-DF34	H08-DF36	H08-DF46
Nominal Capacity	HOR	kw	465	575	757	863	1231
Water System Series Model			H08 -3C24	H08-3C26	H08-3C34	H08-3C36	H08-3C46
Nominal Capacity	HOR	kw	309	363	513	549	738
Ammonia System Series Model			H08 -DA24		H08-DA34		H08-DA44
Nominal Capacity	HOR	kw	405		609		788
Number of Fans			2	2	3	3	4
Fan Size	Dia	mm	1250	1250	1250	1250	1250
Fan Motors	Mf	kw	2x5. 5	2x5.5	3x5. 5	3x5. 5	4x5.5
Fan Motors FLA	I	A	2X12	2X12	2X12	2X12	2X12
Evap Media Pump	Мр	kw	0.4	0.4	0.4	0.4	0.4
Refrigerant Inlet/Outlet Connection	OD	mm	105	105	105	105	105
Water Make-up(Max) ²	Q	L/S	0. 27	0.27	0. 27	0.27	0. 27
Water Make-up Connection	MBSP	mm	25	25	25	25	25
Water Dump Connection	MBSP	mm	40	40	40	40	40
Water Overflow Connection	MBSP	mm	40	40	40	40	40
Overall Length	L1	mm	3910	3910	5710	5710	7510
Base Frame Length	L2	mm	3640	3640	5440	5440	7240
Holding Down Bolt Centres	M	mm	1750	1750	2650	2650	3550
Dry Weight	W1	kg	2120	2335	2935	3275	4440
Operating Weight	W2	kg	2400	2650	3300	3700	5050
Sound Pressure Level	Lw	dBA	77	77	79	79	80

> Notes:

- 1.Freon System is based on R404A condensing temperature of 40°C and design ambient of 35°C DB/ 21°C WB

 Water System is based on water inlet/outlet 35°C/29.5°C and design ambient of 35°C DB/ 21°C WB

 Ammonia System is based on ammonia condensing temperature of 35°C and design ambient of 35°C DB/ 21°C WB
- 2.Based on 40°C DB/21°C WB ambient conditions
- 3.Sound Pressure Level @ 3m free field(pad side of the unit)

